



RECEIVED
OCT -3 2002
TECHNOLOGY CENTER 2800

ATTACHMENT A -- REVISIONS TO THE SPECIFICATION

This attachment includes paragraphs from the original specification, with paragraphs that are being rewritten in this Amendment being marked up to show the changes in the rewritten paragraphs.

Please rewrite the bottom paragraph on page 1 to read as follows:

Tokkai-Hei 6-209501 published by the Japanese Patent Office in 1994 discloses a hybrid drive device in which a condenser is used as a storage device to drive a motor. However a storage device with the required capacity to drive the vehicle has a weight or a volume which exceeds the limited storage space available in the vehicle. This is due to the fact that the condenser has a low energy density.

Please rewrite the paragraph bridging pages 6 and 7 to read as follows:

The ratio E_c/E_p of the charging power E_p and the stored power E_c , that is to say, the charging ratio is 50% from Equations (1) and (2). Since the condenser is not a fixed voltage device such as a secondary battery, when charged by a fixed voltage, half the charging current is lost as heat due to resistance components between the condenser and the battery. In contrast, the switching [condenser] converter 23 in the present embodiment controls the charging current to the condenser 21 to a fixed current output. As a result, even when charging is performed with a large current generated by the electrical motor 10 during regeneration of braking energy, a high charging efficiency of greater than or equal to 90% is obtained and it is possible to increase fuel economy performance by regeneration of braking energy.

Please rewrite the Abstract, appearing on page 11, to read as follows:

ABSTRACT

In a hybrid drive device which drives an electrical motor with [an] electrical power [of] from a storage device and/or [the electrical power of] from a generator driven by [the] an engine, [in general] a secondary battery is generally used as [a] the storage device. However, [running costs of the drive device are elevated due to the necessity to

replace] the storage device must be replaced at fixed intervals due to a short battery [component] life. In addition, the low charging/discharging efficiency of a secondary battery limits improvements in fuel economy of the drive device. [The present invention provides] The present invention avoids these shortcomings by providing a storage device [comprising] that includes a condenser bank with a plurality of condenser cells connected in series, [a] parallel [monitor] monitors which [is] are connected in parallel to each condenser cell and which bypasses the charging current when the respective terminal voltages exceed a fixed value, and a switching converter with fixed current output characteristics which controls the charging electrical power to the condenser bank. This arrangement allows the present invention to realize improvements in fuel economy and reductions in the running costs [in] of a hybrid drive device.